UML PROJECT

ON

CRIME INVESTIGATION SYSTEM

by

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ABSTRACT

This Crime Investigation System was intended to help in creating a simplified blueprint of a system software that works on establishing a proper setup for the Crime Unit. The software itself is a system for officers where they can deep link to from their own website to let them simplify the management system within their quarters. This means the system is a very simple-minded system, and no introduction is necessary, because once a case is entered, they have already divided the case to different officers based on their domains. The system will simply display a series of forms that will query the user about dates, department, case, etc. and the crime investigation can perform certain takes with in digital frame. In this project we will not go into the exact details of the interface, but we will give a description meant for a programmer who needs to perform maintenance on the system, to help him understand the software faster. This method can be used to create these ecosystems for different other projects as well. UML diagrams allows us to explore and create a full fletched environment for a system so that it becomes programmable and could be simplified to create. Crime Investigation system consists of different departments that are connected to the user interface. This also includes the Inventory and Departments where the officers process the cases. We have briefly connected those domains to create an expanded and a simple software.
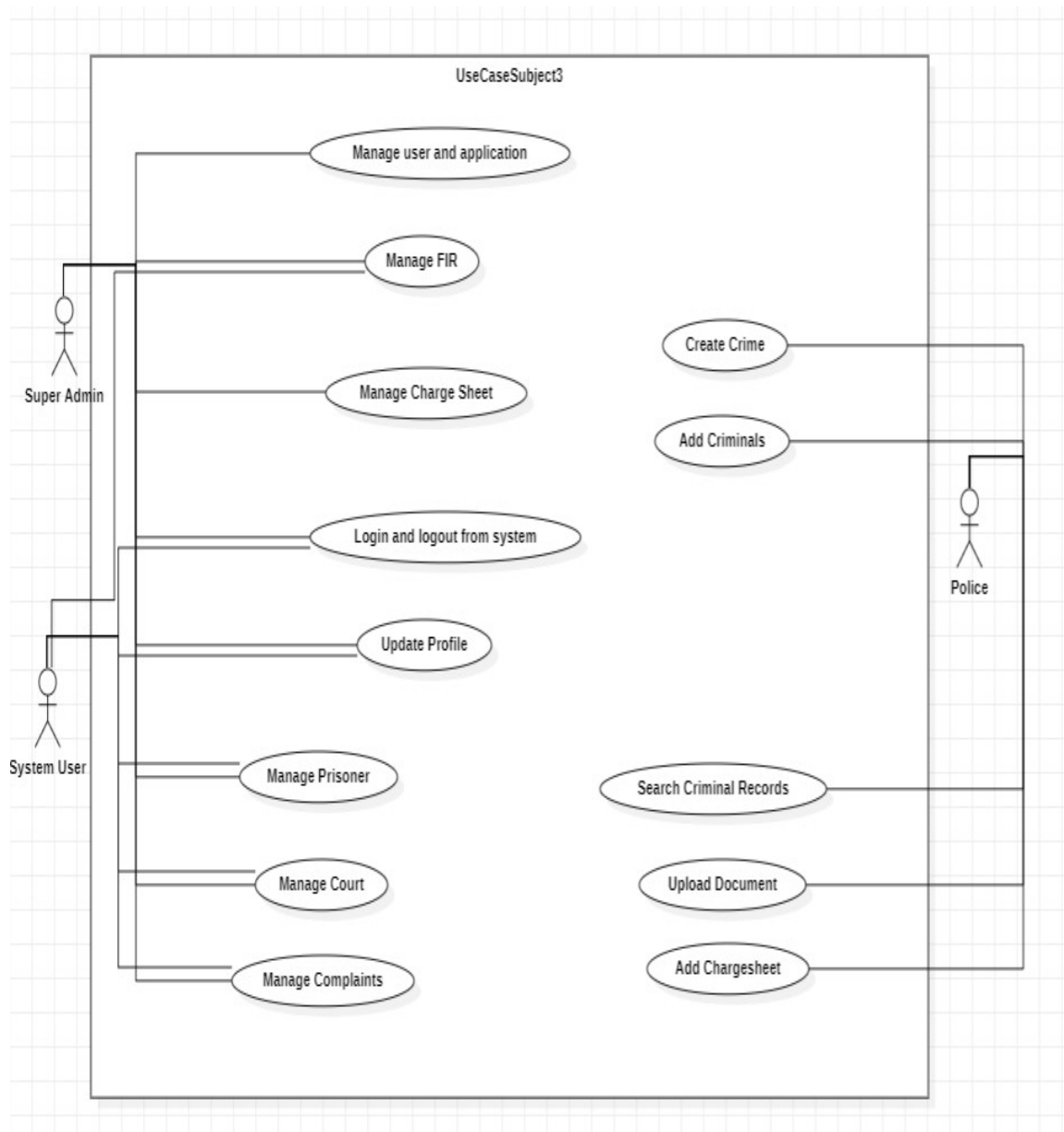
MODULE DESCRIPTION

This UML Project consists of the Following diagrams:

- Use case
- Class
- Sequence
- Collaboration
- State Chart Diagram
- Activity Diagram
- Package Diagram ·
- Component Diagram
- Deployment Diagram

These diagrams are made to create a simplified system for the Crime Investigation System that helps in processing the Cases and creates easy Environment for them to processes the daily work.
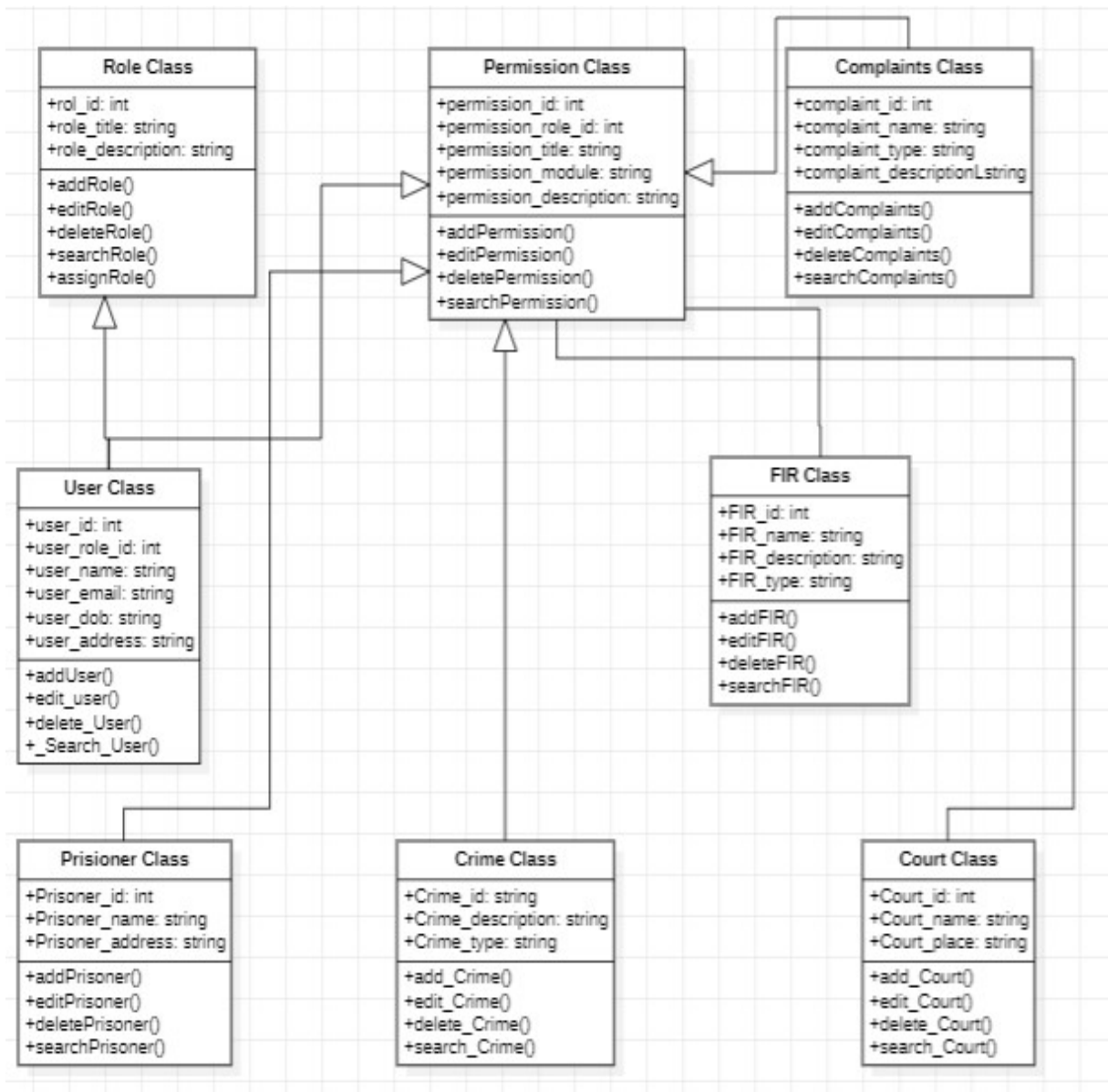
Use Case Diagram

This Use Case Diagram is a graphic depiction of the interactions among the elements of Crime Investigation department. It represents the methodology used in system analysis to identify, clarify, and organize system requirements of Crime Investigation department. Major elements of the UML use case diagram of Crime Investigation department are shown on the picture below.
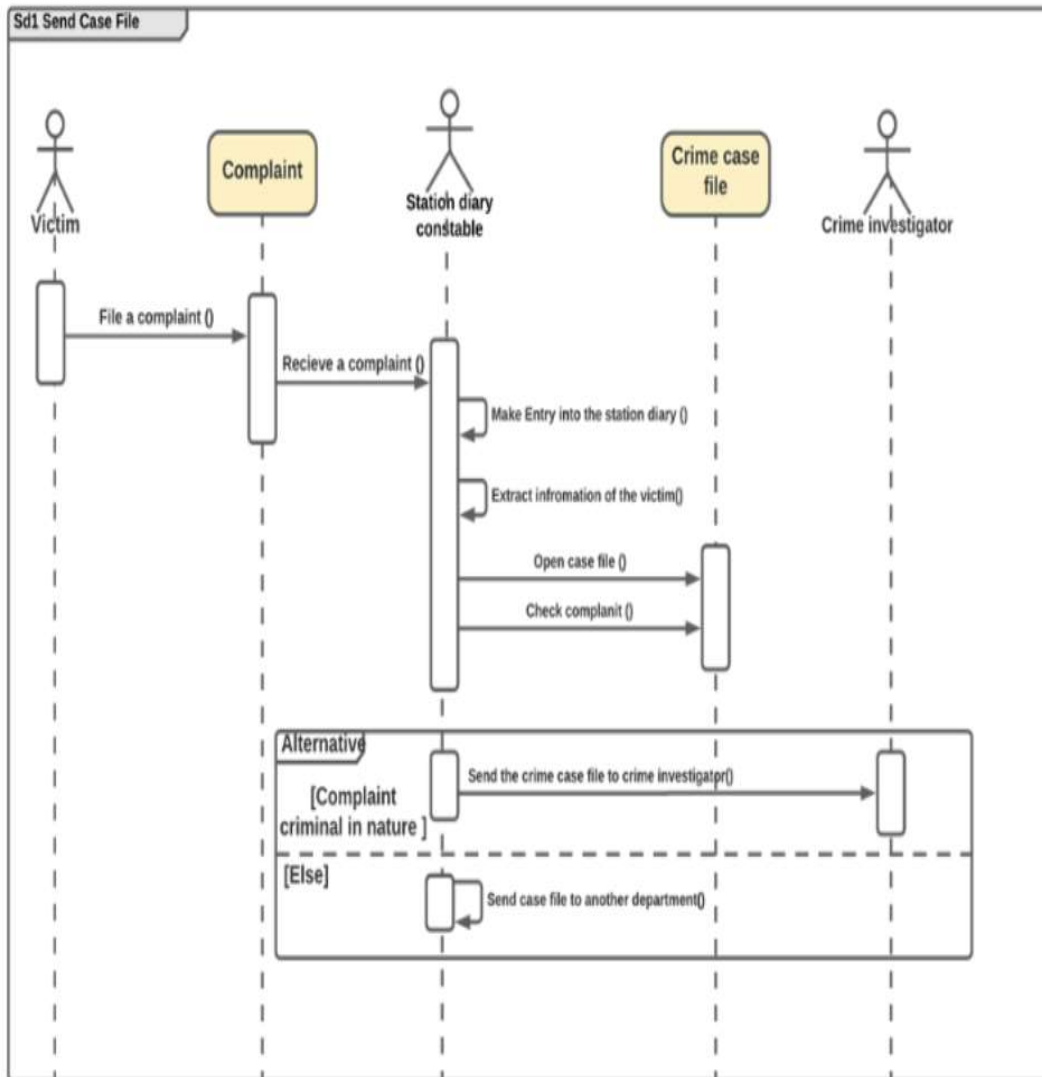
Class Diagram

Crime Investigation Department Class Diagram describes the structure of a Crime Investigation Department classes, their attributes, operations (or methods), and the relationships among objects.

Role Class

+rol_id: int
+role_title: string
+role_description: string

+addRole()
+editRole()
+deleteRole()
+searchRole()
+assignRole()

Permission Class

+permission_id: int
+permission_role_id: int
+permission_title: string
+permission_module: string
+permission_description: string

+addPermission()
+editPermission()
+deletePermission()
+searchPermission()

Complaints Class

+complaint_id: int
+complaint_name: string
+complaint_type: string
+complaint_descriptionLstring

+addComplaints()
+editComplaints()
+deleteComplaints()
+searchComplaints()

User Class

+user_id: int
+user_role_id: int
+user_name: string
+user_email: string
+user_dob: string
+user_address: string

+addUser()
+edit_user()
+delete_User()
+_Search_User()

FIR Class

+FIR_id: int
+FIR_name: string
+FIR_description: string
+FIR_type: string

+addFIR()
+editFIR()
+deleteFIR()
+searchFIR()

Prisioner Class

+Prisoner_id: int
+Prisoner_name: string
+Prisoner_address: string

+addPrisoner()
+editPrisoner()
+deletePrisoner()
+searchPrisoner()

Crime Class

+Crime_id: string
+Crime_description: string
+Crime_type: string

+add_Crime()
+edit_Crime()
+delete_Crime()
+search_Crime()

Court Class

+Court_id: int
+Court_name: string
+Court_place: string

+add_Court()
+edit_Court()
+delete_Court()
+search_Court()

Sequence Diagram

A sequence diagram is a Unified Modelling Language (UML) diagram that illustrates the sequence of messages between objects in an interaction. A sequence diagram consists of a group of objects that are represented by lifelines, and the messages that they exchange over time during the interaction.
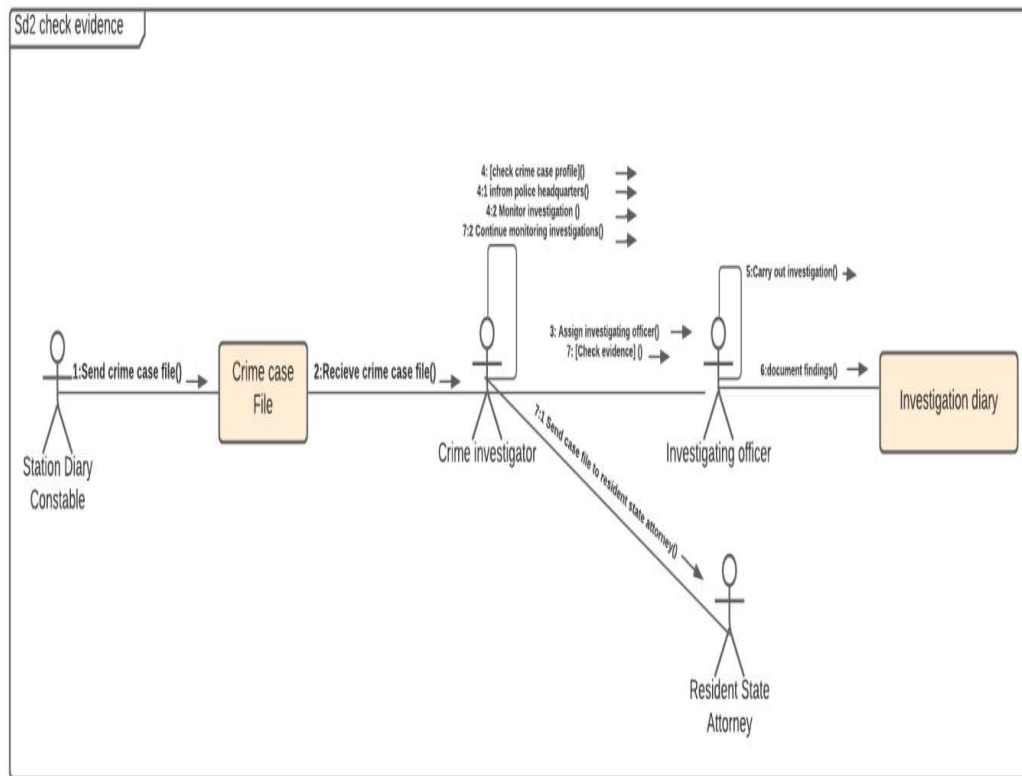
Communication Diagram

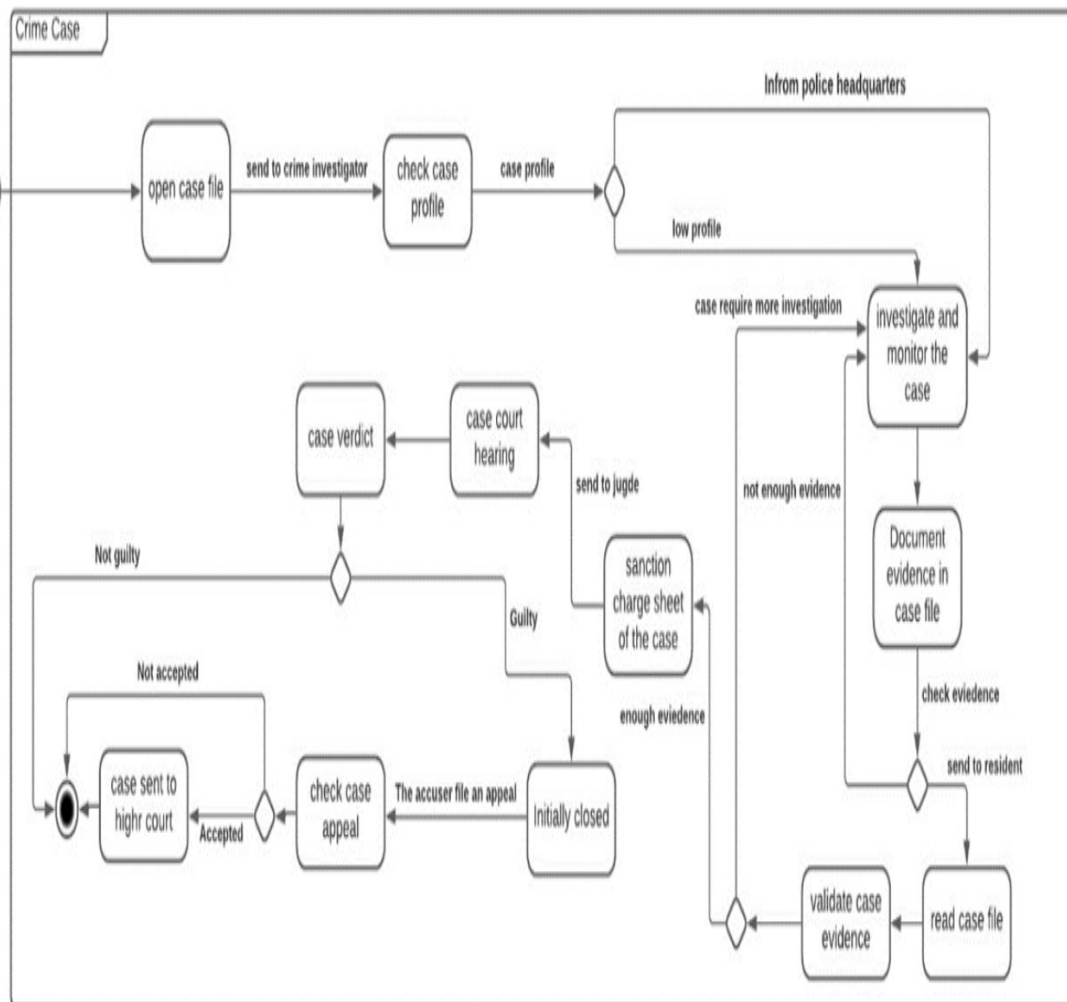This is a Communication Diagram example for Crime Investigation. Communication diagrams are also interaction diagrams. They convey the same information as sequence diagrams, but they focus on object roles instead of the times that messages are sent. In a sequence diagram, object roles are the vertices and messages are the connecting links. The object-role rectangles are labelled with either class or object names (or both). Each message in a collaboration diagram has a sequence number. The top-level message is numbered 1. Messages at the same level (sent during the same call) have the same decimal prefix but suffixes of 1, 2, etc. according to when they occur.
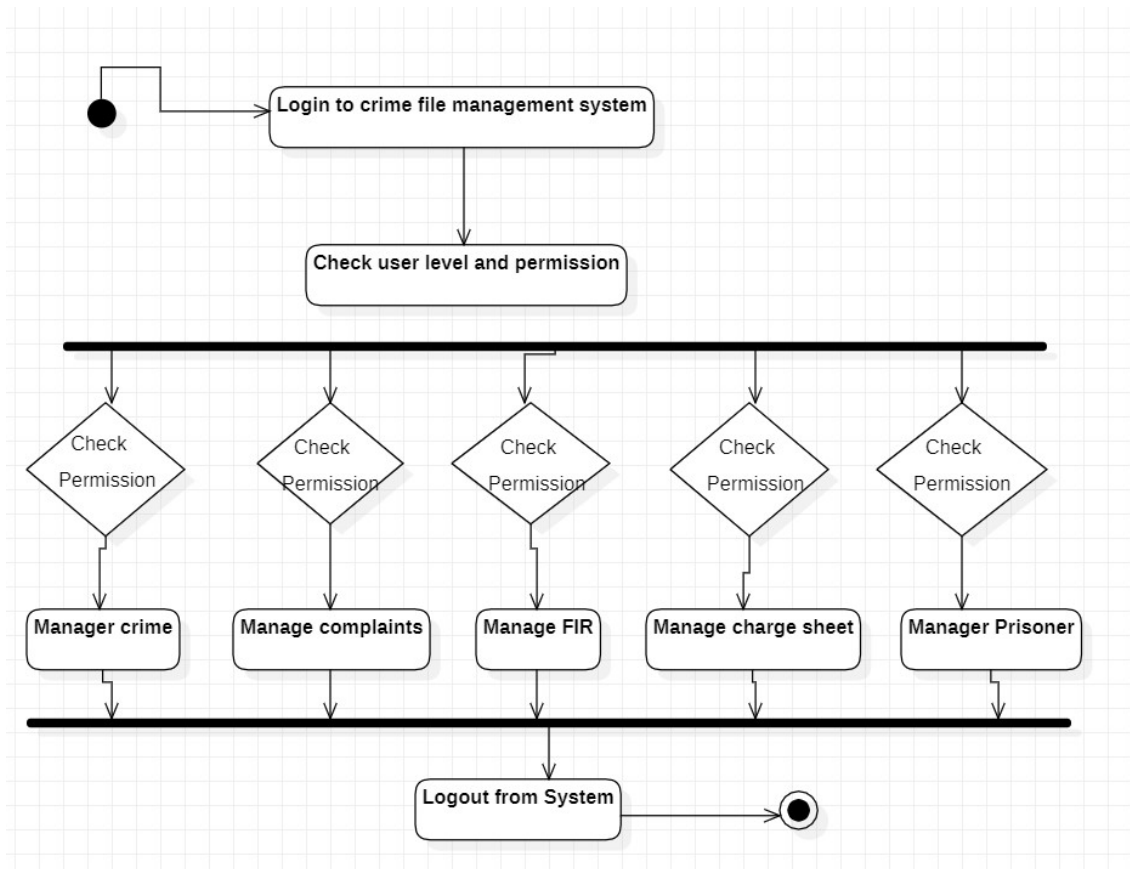
State Chart Diagram

A state diagram is a type of used in computer science and related fields to describe the behaviour of systems. State diagrams require that the system described is composed of a finite number of states; sometimes, this is indeed the case, while at other times this is a reasonable abstraction.
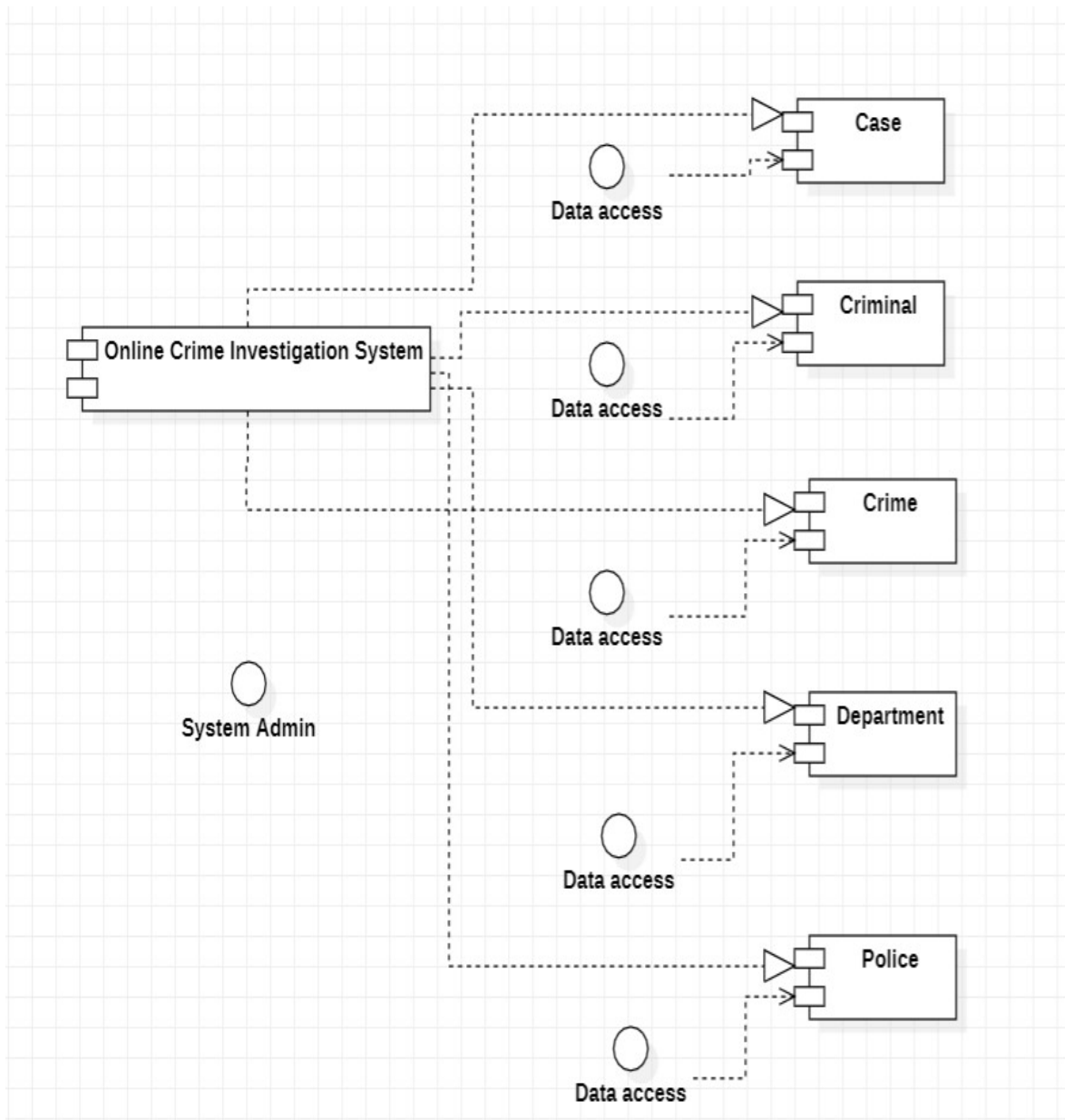
Activity Diagram

An activity diagram visually presents a series of actions or flow of control in a system similar to a flowchart or a data flow diagram. Activity diagrams are often used in business process modelling. They can also describe the steps in a use case diagram.
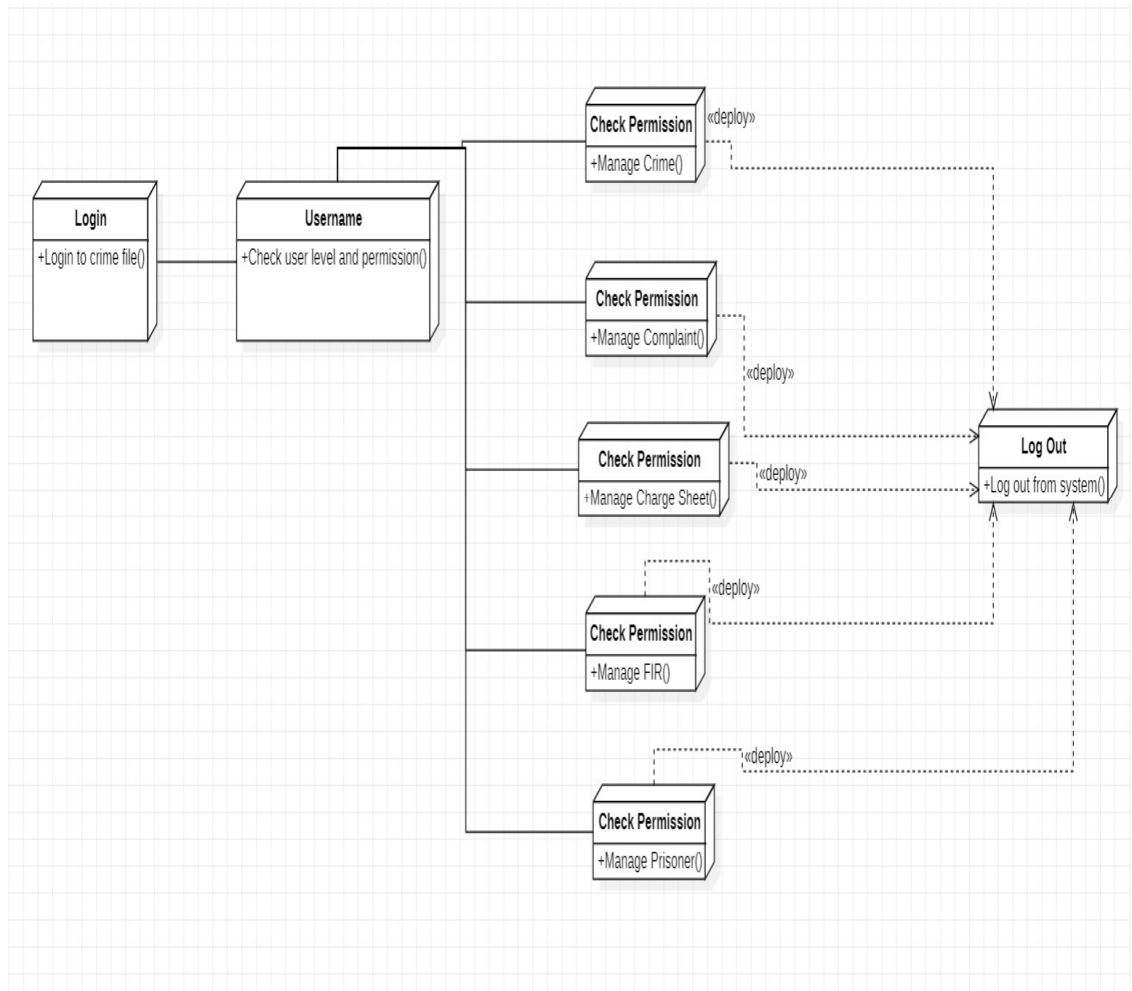
Component Diagram

A component diagram is used to break down a large object-oriented system into the smaller components, so as to make them more manageable. It models the physical view of a system such as executables, files, libraries, etc. that resides within the node.

Deployment Diagram

Deployment diagrams are used to visualize the hardware processors/ nodes/ devices of a system, the links of communication between them and the placement of software files on that hardware.

Conclusion

As a whole, the UML Diagrams works together to achieve the most desired functions of a Crime Investigation System. This helped us to design a basic Blueprint of a Working management Model. UML also allows us to easily Program the Software by simplifying the components. By completing all the given Diagrams, the Crime Investigation System development would be much easier and attainable.